XP-002137000

AN - 1999-323246 [27]
AP - JP19970285360 19971017
CPY - OSAG
DC - E36 L02
DR - 0323-S 1778-P 1778-U
FS - CPI
IC - C01B31/02
MC - E31-N03 L02-H04
M3 - [01] C106 C810 M411 M720 M903 M904 M910 N120 N209 N224 Q453 R043; R01778-K R01778-P; 1778-P 1778-U
PA - (OSAG) OSAKA GAS CO LTD
PN - JP11116218 A 19990427 DW199927 C01B31/02 005pp
PR - JP19970285360 19971017
XA - C1999-095179
XIC - C01B-031/02
AB - JP11116218 NOVELTY - The carbon nano-tube is manufactured by dry process such as laser vacuum deposition, arc discharge, thermal chemical vapour deposition or resistance heating. The graphite sheet formed of nano-tubes is grown using metal particles with particle size 100 nm or less as nuclei.
- DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for raw material for carbon nano-tube manufacture. The raw material consists of (i) carbon in which metal particles of size up to 100 nm are dispersed, and (ii) metal and carbon of particle size up to 100 nm.
- The raw material may be methane and metal or metal compound (organo metallic), metal galvanised carbon, metal intercalated or doped carbon, metal carbon composite (obtained by mechanical alloying by supplying carbon and metal raw material into plasma) or metal dispersed carbon (by addition liquid layer reaction of metal raw material in carbon followed by carbonisation).
- The nano-tube is manufactured by a dry process such as laser vacuum deposition, resistance heating, arc discharge, high frequency induction heating, plasma or heat chemical vapor deposition, electron beam vacuum deposition or combustion. An inert gas is circulated along the inner wall of the container for forming carbon nano- tube.
- USE - None given.
- ADVANTAGE - Monolayer nano-tube with equal thread diameter and thread length is obtained with high yield.
- (Dwg.0/0)
CN - R01778-K R01778-P
DRL - 1778-P 1778-U
IW - MONOLAYER CARBON@ NANO TUBE PRODUCE GROW GRAPHITE METAL PARTICLE PREDEFINED PARTICLE SIZE NUCLEUS FORMING GRAPHITE SHEET FORMING NANO TUBE
IKW - MONOLAYER CARBON@ NANO TUBE PRODUCE GROW GRAPHITE METAL PARTICLE PREDEFINED PARTICLE SIZE NUCLEUS FORMING GRAPHITE SHEET FORMING NANO TUBE
NC - 001
OPD - 1997-10-17
ORD - 1999-04-27
PAW - (OSAG) OSAKA GAS CO LTD